Basic Shapes

Introduction

Airbrushing areas of light and shadow emphasizes the three-dimensional character of the four basic shapes; cubes, spheres, cylinders, and cones. Since everything you draw is a composite of the four basic shapes, understanding how light affects basic shapes helps your understanding how to airbrush light and shadow on other objects.

Cubes

Rendering basic cubes with an airbrush makes the three dimensions of height, width, and depth easier to see. When airbrushing cubes, start with the darkest plane first to serve as a value guide on which to base the other values. Starting with the darkest plane also saves masking certain areas when progressing to the lighter planes. Begin each plane in the darkest corner fading to the opposite corner. When finished, there should be as much contrast as possible between the intersections of the three planes.

To airbrush a basic cube:

Step	Action
1	Draw a sharp, dark outline of a basic cube and place a frisket over it. Leave ample border all around.
2	Select which plane will be the darkest and remove the frisket from this area.
3	Turn the drawing so that the darkest comer is in front of you. This will make it appear as if your strokes diagonally cross the cube.
4	Apply pigment to this comer fading out as you progress to the comer directly opposite. Allow to dry.
5	Remove the frisket from the middle-toned plane.
6	Apply pigment to the darkest comer working diagonally across the block and fading the pigment out before reaching the opposite comer. Allow the pigment to dry.
7	Remove the frisket from the third plane.

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Cubes (Continued)

Step	Action
8	Apply a lighter pigment than the first two tones. Do not apply paint to the far comer of the third plane letting it remain white.
9	Once dry, remove the remaining frisket from the cube illustration.
10	Clean up the illustration and apply any touch-ups or highlights by hand and brush.

Figure 6-33 illustrates the steps in airbrushing a cube.

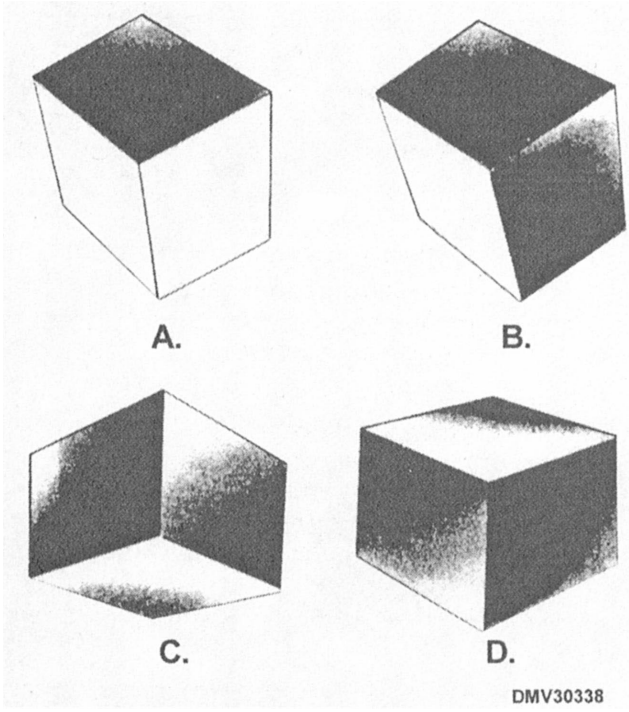

Figure 6-33.—The steps in airbrushing a cube.

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Spheres

Air painting spheres accents their roundness. Build up the tones on spheres gradually. Use short strokes in both directions as longer strokes on curved surfaces are hard to control. Curve your strokes to match the roundness of the sphere. When air painting spheres, progress from light to dark tones. Highlights on spheres should remain white.

To airbrush spheres:

Step	Action
1	Draw a dark outline of a circle. Cover this drawing with frisket.
2	Remove the frisket from the circle.
3	Apply a light tone around the edge of the sphere allowing the spray to overlap the frisket.
4	Carry this tone up from the bottom of the sphere leaving the highlight as white as possible.
5	Apply a darker tone to the lower right side a short distance from the frisket.
6	Apply the same dark tone across the bottom and up the left side overlapping the frisket.
7	Apply a darker tone to the top of the sphere off the edge of the frisket and the-lower right side. Continue to create a crescent of dark tone near the bottom of the sphere.
8	Once dry, remove the frisket.
9	Clean up the drawing and add touch-ups or details by hand with a brush.

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Spheres (Continued)

Figure 6-34 illustrates the steps in airbrushing spheres.

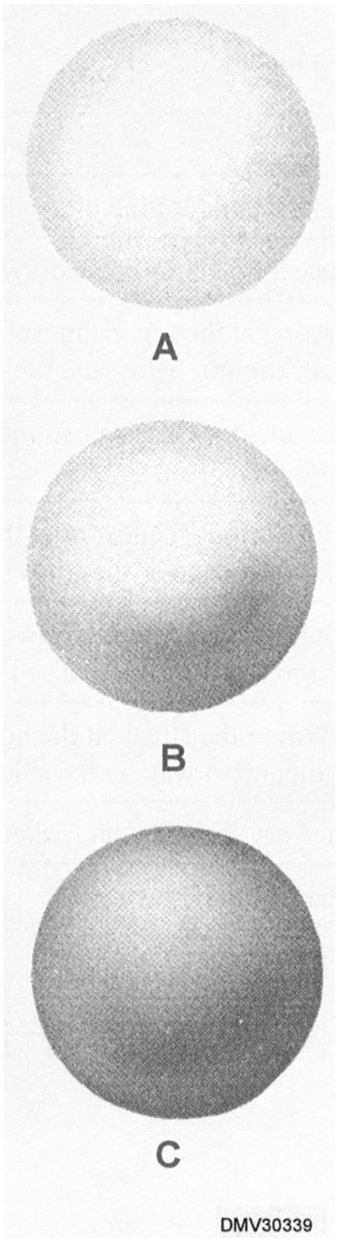

Figure 6-34.—The steps in airbrushing spheres.

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Cylinders

Cylinders reflect light at the bottom and top. The soft, graded edges make the flat rectangular shape have a definite round appearance. Using a raised mask on a cylinder body works better than using a frisket. When airbrushing cylinders, work from light to dark.

To airbrush cylinders:

Step	Action
1	Make a dark outline of a cylindrical (rectangle) form.
2	Place a frisket over the drawing and cut out the area to be painted.
3	Starting at the top, paint a slight shadow over the raised edge of the mask slightly below the top of the cylinder.
4	Turn the drawing over so that the bottom of the cylinder is now the top.
5	Paint a slight shadow over the raised edge of the mask and slightly below the edge of the frisket.
6	Apply pigment slightly lower, leaving a light streak between it and the top stroke using a raised mask. Turn the drawing over again.
7	Return to the streak at the bottom of the cylinder and extend the pigment part way up the side.
8	Once dry, remove the frisket.
9	Clean up the drawing.

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Cylinders (Continued)

Figure 6-35 is an airbrushed cylinder.

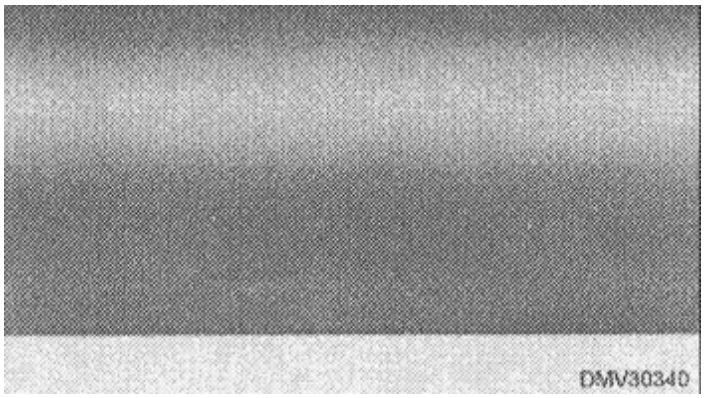

Figure 6-35.—The airbrushed cylinder.

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Cones

Cones are less easy to airbrush for they require some judgment in the shape of irregular forms. When airbrushing cones, work from light to dark.

To airbrush cones:

Step	Action
1	Draw a dark outline of a cone.
2	Place a frisket over the drawing and remove the area to be painted.
3	Apply a light tone to the left and right side of the cone extending slightly along the base.
4	Using the same tone. Paint triangular shapes on each side of the cone from the apex to the base slightly in from the frisket. A raised mask will soften the edges of the paint.
5	Apply a darker tone on each side overlapping the frisket.
6	Use a raised mask and apply a dark tone to the center of the light-toned triangular shapes.
7	Once dry, remove the frisket.
8	Clean up the drawing, touch up by hand with a paint brush.

Figure 6-36 illustrates the steps in airbrushing cones.

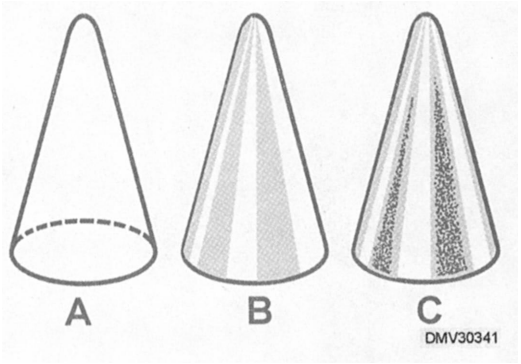

Figure 6-36.—Steps in airbrushing cones.

Pictorial Rendering

Introduction

Rendering illustrations with an airbrush produces very fine tonal gradations resembling photography. There is a definite procedure or sequence of actions to follow to successfully render imagery in airbrush.

Pictorial rendering

Pictorial rendering with an airbrush requires advance planning and meticulous preparation. Generally, you air paint light tones first, working toward the darkest. Work the illustration starting in the background, then the middle ground , and finally, the foreground. Details and highlights almost always require the use of a hand brush.

To airbrush pictures:

Step	Action
1	Work out shading and detail on a comprehensive thumbnail sketch.
2	Draw out the image on illustration board. You may draw the image on paper and transfer it to illustration board by covering the back side with graphite and tracing it to the board (figure 6-37).
3	Place a frisket over the drawing and expose the background area.
4	Apply tone starting with the lightest area and progressing to the darker tones (figure 6-38).
5	Use a hand brush to add details. Allow to dry.
6	Cut away the frisket over the middle ground.
7	Cover the background with a partial frisket.
8	Apply paint to the middle ground starting with the lightest tones and progressing to the darker tones (figure 6-39).
9	1 Use a hand brush to add details and allow to dry thoroughly.

Continued on next page

Pictorial rendering (Continued)

Step	Action
10	Remove the frisket from the foreground (figure 6-40).
11	Place a partial frisket over the middle and background.
12	Apply the lightest tones, then darker ones.
13	Use a hand brush to add details. Allow to dry.
14	Remove all friskets.
15	Emphasize highlights with a hand brush.
16	Clean up the illustration (figure 6-41).

Figure 6-37 shows a drawing on illustration board ready to airbrush.

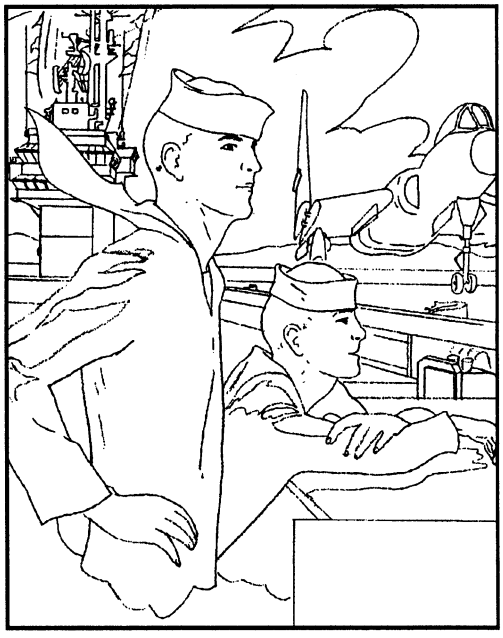

Figure 6-37.—The basic drawing on an illustration board.

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Pictorial rendering (Continued)

Figure 6-38 shows the illustration with the background airbrushed.

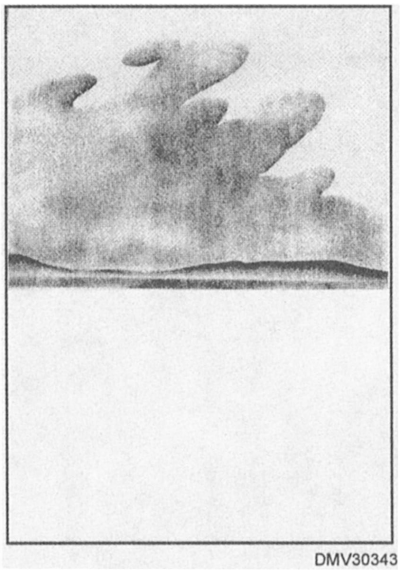

Figure 6-38.—The airbrushed background.

Figure 6-39 show the middle ground airbrushed.

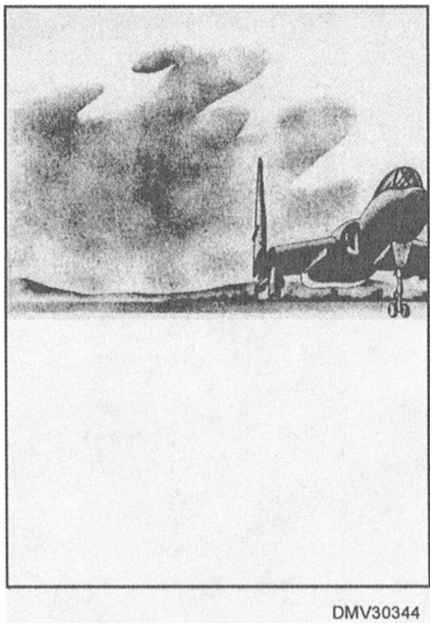

Figure 6-39.—The middle ground airbrushed.

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Pictorial rendering (Continued)

Figure 6-40 shows the foreground in the illustration exposed and ready to paint.

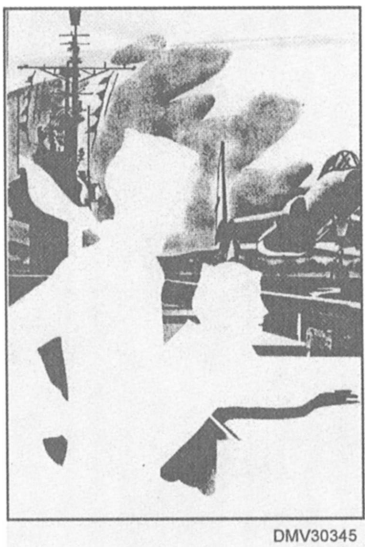

Figure 6-40.—The exposed foreground.

Figure 6-41 is a finished airbrush illustration.

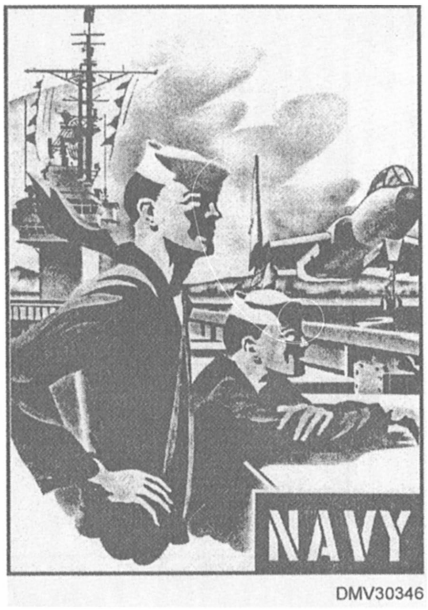

Figure 6-41.—The finished airbrush illustration.

Technical Illustrations

Introductions

Realistically rendering machine parts, mechanisms, or systems requires more precision in certain applications than pictorial rendering. In the illustrations that appear in operating instructions, manuals, visual aids, or medical journals, accuracy and correctness are imperative.

Technical illustrations

Technical illustrations factually or symbolically illustrate the construction, function, or operation of a machine, a physical phenomenon, an industrial process, or a biological theory. Accuracy is essential. Even the colors of the object are often dictated by the object itself, leaving little opportunity for creative licence.

The technique used to render technical illustrations depends on the way the illustration is used or reproduced and the time allotted for the job. Airbrush is particularly suited to technical illustration because of its flexibility, ease of control, shading, and color blending capabilities.

Make the initial drawing on paper. Do all corrections on the paper drawing before transferring it to illustration board. Any irregularities caused by corrections, abrasions, and dirt will show on illustration board. Indicate detailed shading on the paper drawing. Trace the line outline to illustration board and ink in using any drafting tools required.

Since shading has been predetermined, you may begin airbrushing anywhere on the drawing. Generally, start at the top of the illustration and work down or from the left side to the right in order not to disturb completed areas. You may expose more than one section of the drawing if the sections are not adjacent to each other and the spray pattern is not large.

Once the drawing is inked onto the illustration board, cover selected areas with frisket and cut the frisket only along the black outline of the object. Should the frisket pull away some of the black outline, it will be easy to correct with an ink pen.

In rendering technical illustrations, your knowledge of rendering the four basic shapes with an airbrush is invaluable. Approach each section as a basic form remembering always from where the light originates.

Continued on next page

Technical illustrations (Continued)

To airbrush technical illustrations:

Step	Action
1	Make an outline drawing on paper (figure 6-42).
2	Indicated detailed shading. Make sure the drawing is correct.
3	Transfer the drawing to illustration board using graphite on the reverse side of the drawing. The illustration board must be free of all imperfections.
4	Ink in the line outline of the drawing.
5	Beginning from the top to bottom or left to right, cover a section with frisket.
6	Cut the frisket with a sharp blade along the line outline of the object (figure 6-43).
7	Approach the airbrushing of sections as you would basic shapes.
8	Allow pigment to dry.
9	Continue this procedure as many times as necessary to complete the drawing (figure 6-44).
10	Remove all friskets.
11	Add details and highlights by hand with a brush.
12	Clean up the drawing surface.

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Technical illustrations (Continued)

Figure 6-42 shows a technical drawing outline.

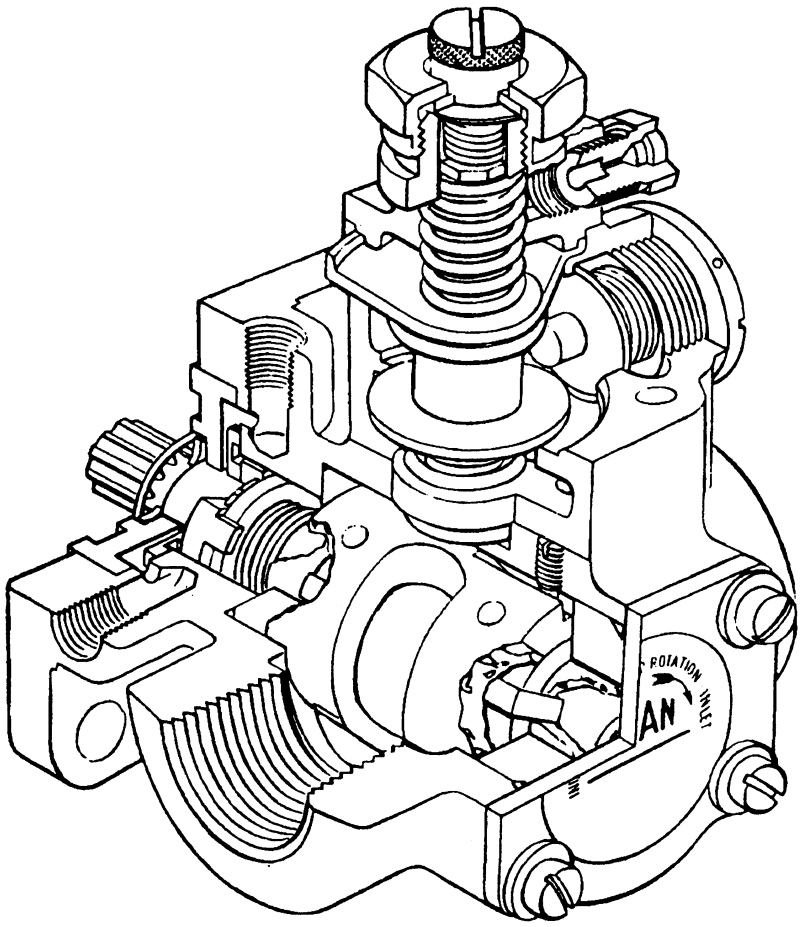

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Figure 6-42.—Technical drawing outline.

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Technical illustrations (Continued)

Figure 6-43 illustrates the technique of cutting a frisket on the illustration outline.

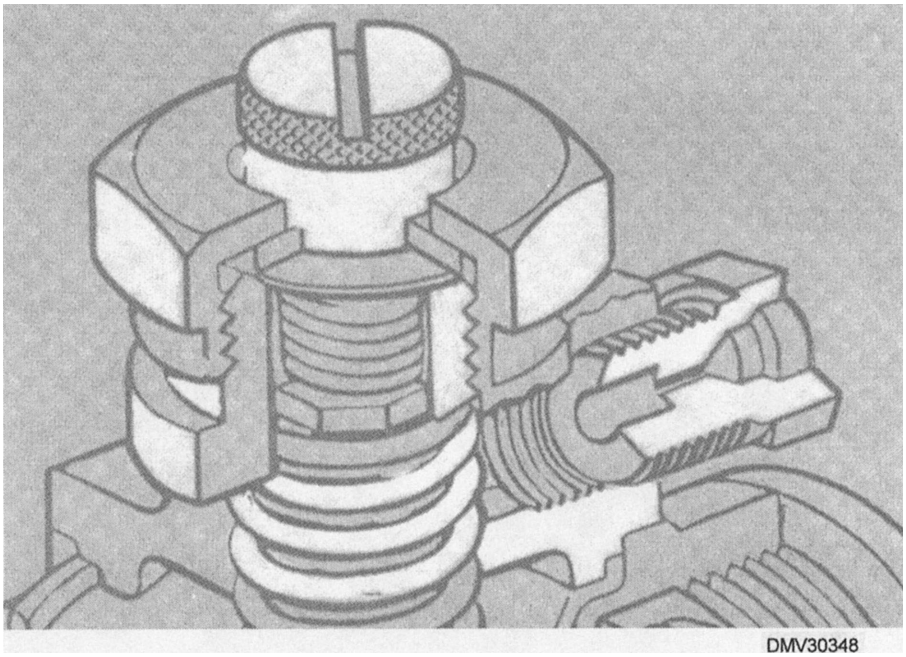

Figure 6-43.—A frisket cut out to expose a segment of the illustration for airbrushing.

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Technical illustrations (Continued)

Figure 6-44 shows the frisket applied section by section until the illustration is complete.

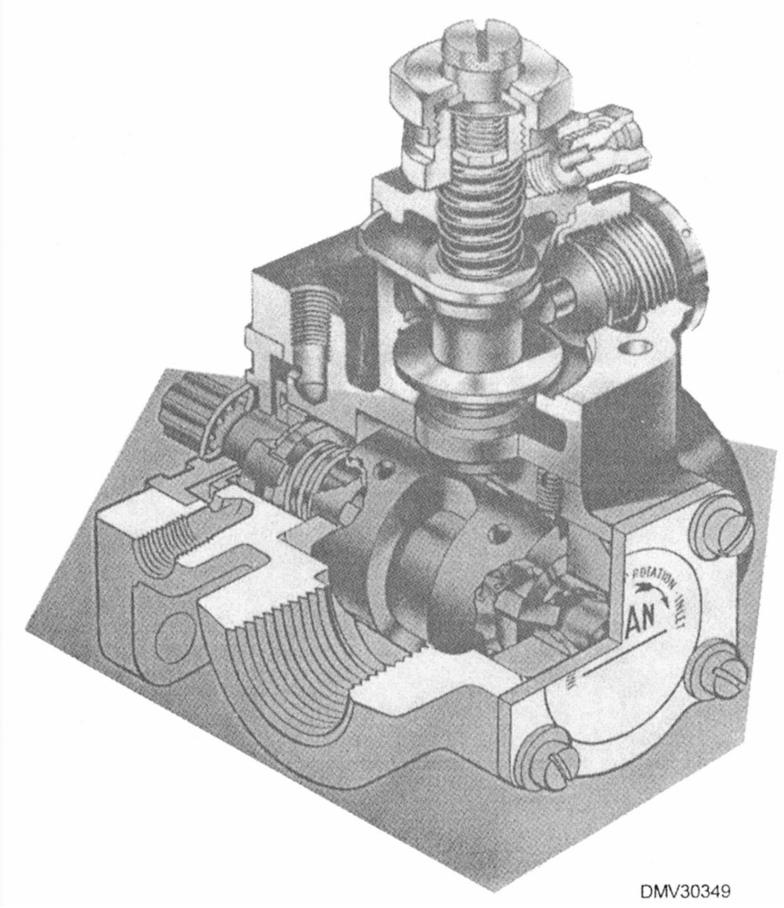

Figure 6-44.—Airbrush by sections until the illustration is complete.

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Technical illustrations (Continued)

If airbrushing a complicated technical illustration with threaded areas and bolt heads, airbrush each thread or bolt one at a time until the entire section is finished.

Figure 6-44 illustrates the procedures for airbrushing inside threads.

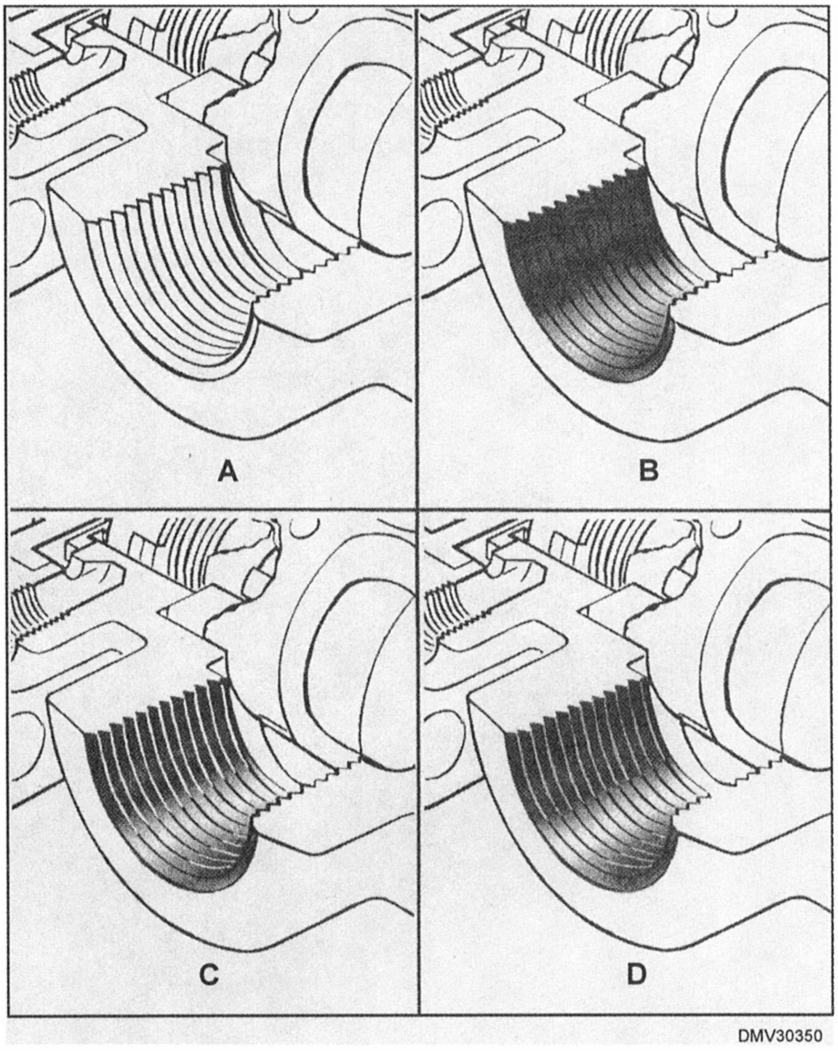

Figure 6-45.—Airbrushing inside threads.

PhotographicRetouching

Introduction

There are many reasons to alter photographs with an airbrush. One reason is to combine one photograph with another. Another reason is to eliminate or reduce background images. And still another reason for altering photographs is to create a halo or vignette around the central image. Knowing how to alter photographs with an airbrush allows you to use otherwise mediocre photographs effectively.

Photographic retouching

The most important phase of photographic retouching is the preparation of the photo before you begin painting.

Mount photographs on illustration board allowing at least a 2-inch border all around the photo. The border will make handling the photograph easier during painting.

Modern photographic papers are covered with a thin layer of resin leaving a glossy surface that does not take pigments well. Using a talcum powder or Fuller's Earth on a cotton pad, rub the face of the photograph. This will slightly abrade the surface and provide tooth to hold pigments.

Make sure there are no fingerprints or scratches on the surface of the photograph. Place a piece of clean paper under your wrist as you paint to prevent depositing oils from your hands on the paper surface.

Apply pigments as you would on any airbrushed illustration. Should you make an error, wrap a small piece of cotton around the end of a paint brush or pencil and wipe off the pigment.

Clean up the photograph of overspray and spray a fixative over the photo if necessary.

Summary

Review

This chapter on airbrushes covers the types of airbrushes you are likely to find in a Graphics shop. The double-action airbrush, the most common brush, is explained in detail. Information on component parts associated with airbrush use, their assembly, and maintenance should help the novice set up and maintain an airpainting system. The DM will also find helpful, the sections on even tones, graduated tones, and different effects possible with the airbrush. The chapter ends by outlining procedures for creating effective pictorial renderings, technical illustrations, and photographic retouching.

Comments

Less than half of the shops in the fleet have airbrushes. Many shops have bits and pieces of airbrush paraphernalia but no longer have a complete system. If your shop has potential airbrush capabilities, it is worthwhile to develop the skills to use them. Airbrush art appears on license plates, motorcycle gas tanks, ballcaps, t-shirts, and just about everything. Airbrush art is everywhere and is a lucrative business in the civilian marketplace.